Media Vision PCMCIA Sound Card

Getting Started

Illustrated Installation Guide

MEDIA VISION

System Checklist

Customer ID Number: ________________

ID number provided by Tech Support technician during your first call.

Product	**Details**
Multimedia product purchased	
Date of purchase	
Name and version of Multimedia Software Installation disk	
Type of computer (386, 486, etc.)	
Operating System (MSDOS, PCDOS, etc.) and Version (MSDOS 5.0, 6.0, 6.2, etc.)	
Memory (RAM) installed (2MB, 4MB, etc.)	
Card and Socket Services name and version	

Sound Software Directory Name: ________________

That's either the default directory MEDVSN or the name you gave it during installation.

Devices	**Brand Name**	**DMA**	**IRQ**	**Port Address**
Mouse				
Scanner				
Sound Card				
CD-ROM drive				
Fax/Modem				
MIDI device				
Other				

See instructions for completing this form and calling Tech Support. They're just inside the back cover.

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. Operation is subject to the following two conditions (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause interference to radio or television equipment reception, perform one or more of the following measures:

- Reorient or relocate the receiving antenna
- Move the equipment away from the receiver
- Plug the equipment into an outlet and circuit different from that which powers the receiver
- If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions.

⚠ *Caution*

Only equipment certified to comply with Class B (computer input/output devices, terminals. printers, etc.) should be attached to this equipment, and must have shielded interface cables.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Any changes or modifications to the equipment by the user not expressly approved by the grantee or manufacturer will void the user's authority to operate such equipment.

⚠ *Caution*

This product may utilize a laser. Use of control or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Do not open covers and do not repair yourself. Refer servicing to qualified personnel. Product complies with DHHS Rules 21 CFR Subchapter J.

- Class 1 Laser Product   Wavelength: 780 nm

To assure continued FCC compliance, the user must use only provided shielded interface cable with ferrite cores when connecting this device to a host computer. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate this device.

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Getting Started

Thank you for choosing the Media Vision PCMCIA Sound Card! In minutes, your computer will be bursting with colorful multimedia magic and pure digital sound!

Text and Keyboard Conventions

We use the following conventions in this manual:

- We use *italic* type or **bold** type to emphasize a word or phrase within a paragraph.
- Text that you see on the screen looks like this:

```
LOADHIGH C:\MEDVSN\SETSOUND.COM /I:5
```

- Text that you should *type*, is bold and looks like this:

```
CD\MEDVSN
```

- We use a ***small bold italic*** type to name things such as buttons, options, and menu selections:

  Press the ***Eject*** button.

  Plug the joystick into the ***Joystick/MIDI*** Port.

  Select ***MIDI*** from the ***File*** menu.

We also use this ***small bold italic*** type within paragraphs and lists to make the names of other sections, chapters, or manuals stand out. For example, the next section is ***Check System Requirements***–page 3.

Chapter Contents:

❖ ***Text and Keyboard Conventions***–*page 1*
❖ ***Check System Requirements***–*page 3*
❖ ***Before We Start***–*page 4*
❖ ***Sound Card Features***–*page 4*
❖ ***What is PCMCIA?***–*page 5*

Keyboard Commands

Keyboard key names are shown in regular text. We use the following conventions to describe how you should execute keyboard commands:

- When a key combination has one or more commas (such as Alt,Key1,Key2), it means to press the Alt key and release it, then press Key1 and release it, then press Key2 and release it. For example:

  Open Sound Impression's Online Help file by choosing **Contents** from the **Help** menu (Alt,H,C).

  Close Sound Impression by choosing **Exit** from the **File** menu (Alt,F,X).

- When a key combination has one or more plus signs in its description (such as Alt+Key1), it means to press the Alt key and Key1 *simultaneously*. For example:

  Cut the highlighted selection by clicking the **Cut** button or by pressing Shift+Delete.

Icons

Various icons are posted at prominent points in the text. They alert you to something important. Here's what the different icons mean:

Note

This eager fellow appears whenever he has something worth calling to your attention. Take note of it.

Tips & Tricks

This tricky guy lets you in on helpful hints.

Caution

This officer alerts you to situations that can cause loss of data or damage to your computer. Heed his message!

Try This!

If you want to be creative with your computer and get the most out of your new sound card, follow these suggestions.

Technoblurb

Our friendly Tech Jockey's hints can be skipped by people not entranced by technical details. However, if you thrive on detailed data, read these hints and enjoy!

FasTech Facts

*We have more detailed information on this topic. It's available by fax or BBS download and primarily of interest to those who appreciate technical intensity. See **FasTech Facts Feature** in your **Multimedia User Guide** for more details.*

Check System Requirements

Your computer must meet the following minimum specifications for your sound card and associated software to work.

If you don't know if your computer meets the following requirements, refer to your computer owner's manual for a list of the system's specifications.

Minimum Requirements

- IBM-compatible computer models 386SX or higher with an available PCMCIA type II slot (386DX/33 or higher required for some software titles)
- 4 MB RAM (more RAM required for some software titles)
- 6 MB hard disk space required for standard installation; plus 4 MB free for sound processing (additional space needed for some software titles)
- VGA compatible display
- Microsoft or compatible mouse/pointing device
- I/O Port Addresses for sound card (addresses required are 200-20F and 380-38F)
- MS-DOS version 5.0 or later
- Windows version 3.1

Before We Start

- **Wait!** Your Registration Card is just begging to be filled out and mailed. Don't put it off another second!
- Unpack the contents of your sound card box.

Relax and have a good time; it's not difficult. We will guide you through the steps. If you need more information, FasTech Facts is available electronically.

Once you get everything installed, if you need assistance, Media Vision's Technical Support Group can answer almost any question you have.

And now, let the adventure begin!

Sound Card Features

Your sound card includes the following features:

- PCMCIA type II (version 2.0 compatible).
- High quality sound — dynamically filters for low noise digital recording and playback. Microphone input — uses automatic gain control (AGC) to adjust sound input to adapt dynamically to different sound situations.
- Supports both dynamic and condenser mono microphones (with AGC pre-amp).
- Works with Card & Socket Services 2.0.
- Supports hot-insertion and removal.
- 20-voice FM music synthesizer — plays up to 20 instruments simultaneously to deliver an orchestra full of rich and dynamic music.
- Virtual Game environment for Sound Blaster™ compatibility (refer to the ***Sound Blaster Compatibility with VGame*** section on page 21 for information on Sound Blaster compatibility).
- 44.1 kHz digitized audio playback — faithfully plays back and reproduces all kinds of digitized sounds with a 16-bit digital-to-analog converter (DAC). Works with games that use digital voice channel to deliver ultra-realistic human speech and mind-blowing sound effects. Up to 44.1 kHz digitized audio recording — records all types of stereo sound through the microphone and line-in input jack.
- Built-in 2:1, 3:1, and 4:1 compression/decompression for 8-bit PCM files in both mono and stereo samples.
- µ-Law, A-Law, and IMA ADPCM compression/decompression in real time, for 16-bit files. (Additional third-party software required).
- MPU-401 UART mode compatible MIDI and supports the largest library of third-party software.
- IBM standard joystick connector as well as a MIDI port (requires a MIDI Mate Adapter to attach MIDI device).
- Built-in 80 mW power amplifier — includes manual volume control.

What is PCMCIA?

People Can't Memorize Computer Industry Acronyms... just kidding! Actually, that long acronym stands for Personal Computer Memory Card International Association... no kidding! A PCMCIA card is sometimes referred to as PC card for short.

Actually notebook computers have evolved to a point where they can do anything a desktop computer can do...and more! No more peripherals with long cords snaking across mills on your desktop. PCMCIA cards allow you the freedom to use your computer anywhere you choose--at the office, on the light rail, or at home.

Can't We All Just Get Along?

Unfortunately, the PCMCIA world is not a standardized world. True "Plug-and-Play" compatibility is not yet available and you may encounter problems when trying to configure your notebook to work with different cards or devices.

Important restriction with PCMCIA (especially if you are an avid DOS game player) concerns the amount of conventional memory required to run the Card and Socket Services software. For instance, newer games may not work since the Card & Socket Services requires an "outrageous" amount of conventional memory! Well...maybe not outrageous, but around 50K of conventional memory. Some of the newer DOS games may "overtax your system resources"—an engineering term to describe a system that hangs and locks up your notebook, if there isn't enough memory.

Media Vision designed a small program called **SETSOUND.COM** that configures the sound card when inserted into your notebook. The program is designed to work under several different situations:

❖ Card & Socket Services

❖ Socket Services only

❖ Direct notebook connection (and optional accessories)

This unique adaptability mimics some benefits of the Plug-and-Play standard may deliver, but without using as much memory.

Note

*If you crave more technical information on PCMCIA, check out the **PCMCIA Levels** section on page 16.*

Is This Card Your Type?

Your sound card is a type II PCMCIA card and requires a type II slot to reside in. Currently, three standard slot and card types (type I, type II, and type III) are blessed by the Personal Computer Memory Card International Association. Refer to your notebook's user guide to determine which type of slot your notebook can accept.

What is Card & Socket Services?

Hidden costs on your VISA card they are not! The CardSoft software is known in the industry as Card & Socket Services software. Both the Card & Socket Services are fancy terms for drivers. A driver is a software program written so that two pieces of hardware or software can talk to each other and understand what they are saying.

The card service allows your notebook to recognize when you have inserted the sound card into the slot (remember, only a type II slot can be used!). Your sound card also requires one system interrupt (a.k.a., a hardware interrupt request (IRQ) so that it can talk with your notebook.

IRQ?...Just Fine Thank You

The sound card must have sole access to the selected IRQ. Since PCMCIA products are new to the high-tech world, they occasionally “cop an attitude.” Consequently, your sound card does not like to share IRQs! You can use the PCMCIA Sound Card Software Installation’s Custom configuration to choose an available IRQ, just in case the first choice is not available. The PCMCIA Sound Card Software Installation Disks also let you test each IRQ setting before you exit the program.

Hardware Installation

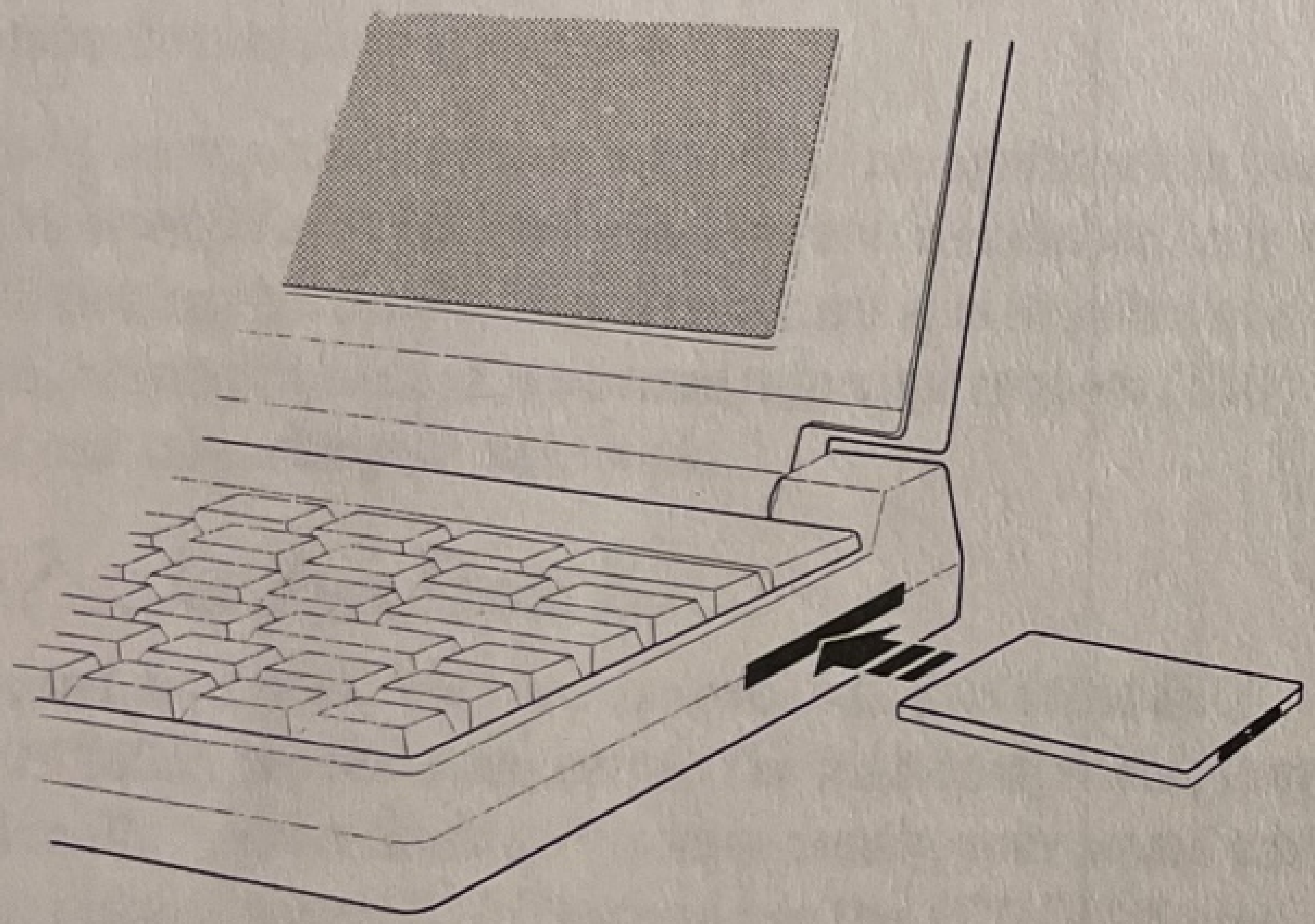
Aha! This is the easy part. No disks to fool with or DOS commands to type. Actually, if you know how to use an automatic teller machine (ATM) you have half of the process licked! Just follow the instructions and illustrations and your PC card becomes an active tool in your high-tech toolbox.

Chapter Contents:

❖ **Inserting the Sound Card**—*page 8*

Inserting the Sound Card

Carefully slide the sound card into the type II slot. Make sure you place the end with the arrow on it facing up towards the slot.



Note

The sound card can be "hot-inserted." This means the PC card can be inserted while the computer is on (quite unlike expansion cards!).

If your system has only one PCMCIA Type -II slot with a floppy drive attached to it, you must copy all four installation disks to a directory on your hard drive.

Make a directory called `MVINSTAL`. Insert Installation Disk 1 in your floppy drive and type

```
COPY A:\*.* C:\MVINSTAL
```

Repeat this step for the remaining disks. Change to the `MVINSTAL` directory, and run ***INSTALL***. After installation, you can remove the `MVINSTAL` directory.

Attach External Devices

At the very least you need to connect speakers or headphones with mini jacks to your sound card to hear sound. You can also attach other items such as the following:

- ❖ Mono microphone
- ❖ External input devices (tape deck, stereo system, music CD player)
- ❖ Joystick or game pad
- ❖ MIDI device, such as a musical keyboard using a MIDI Mate adapter

The following pages show you how.

Note

The external devices shown in this chapter may vary in appearance from the contents of your package.

Chapter Contents:

❖ ***Audio Adapter**—page 10*

❖ ***Headphones**—page 11*

❖ ***Speakers (Optional)**—page 11*

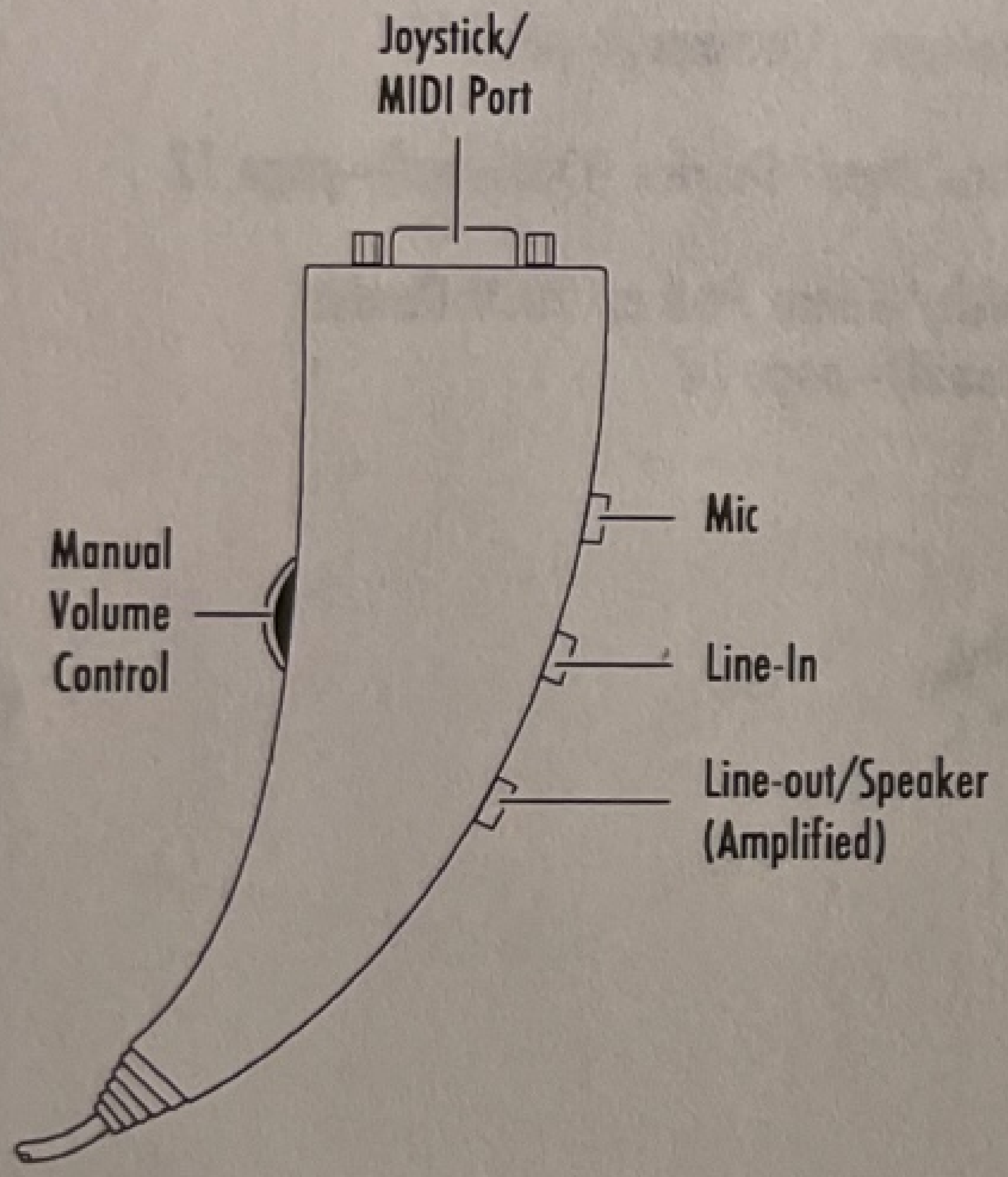
❖ ***Microphone (Optional)**—page 12*

❖ ***External Input Device (Optional)**—page 13*

❖ ***Joystick/Game Pad or MIDI Device (Optional)**—page 14*

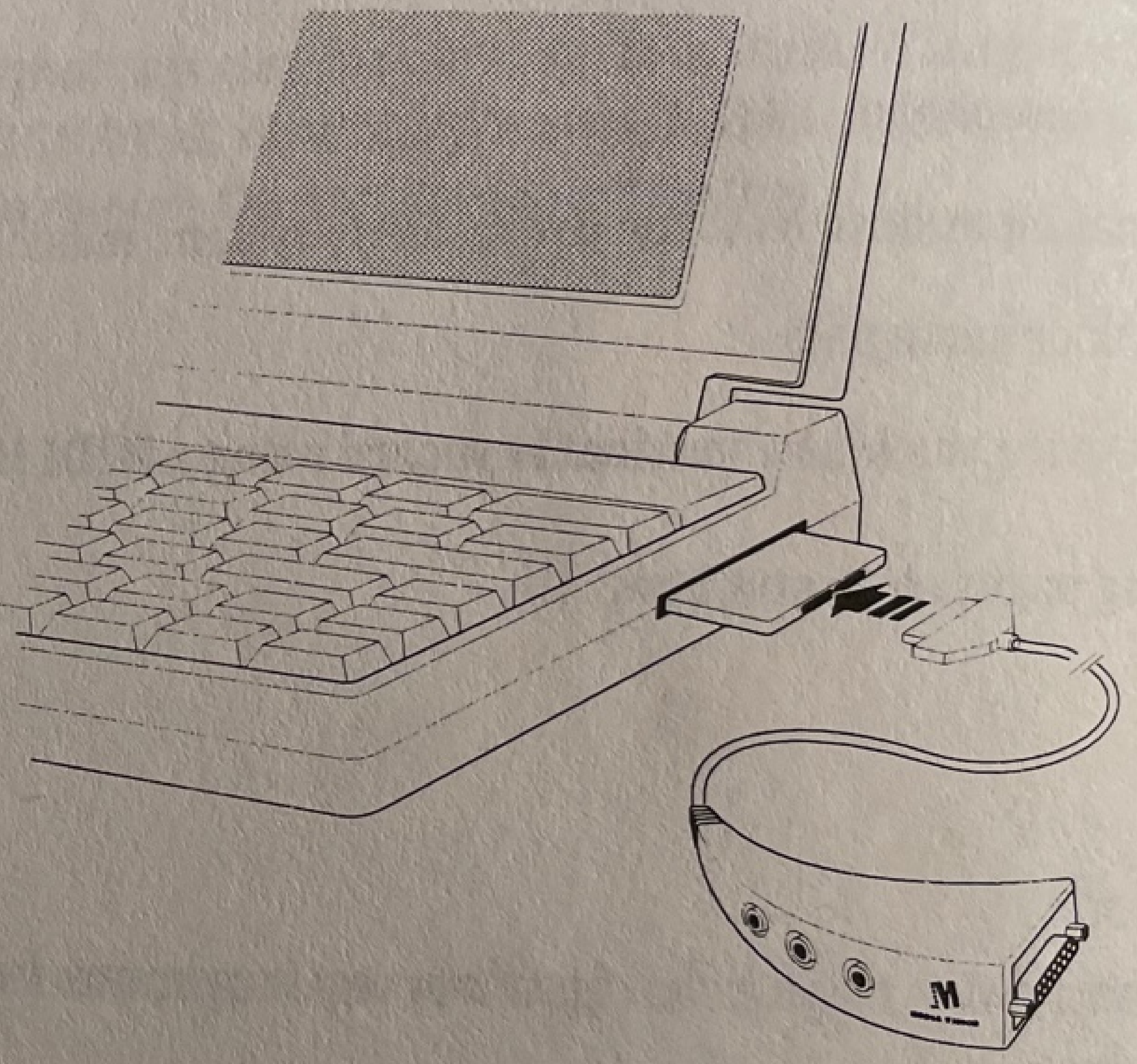
Audio Adapter

To attach a microphone or joystick to something as small as a credit card, a special adaptor was created. This slick little device adds a great deal of function to your sound card. The illustration below highlights the audio adapter's features.


Joystick/
MIDI Port
Manual
Volume
Control
Mic
Line-In
Line-out/Speaker
(Amplified)

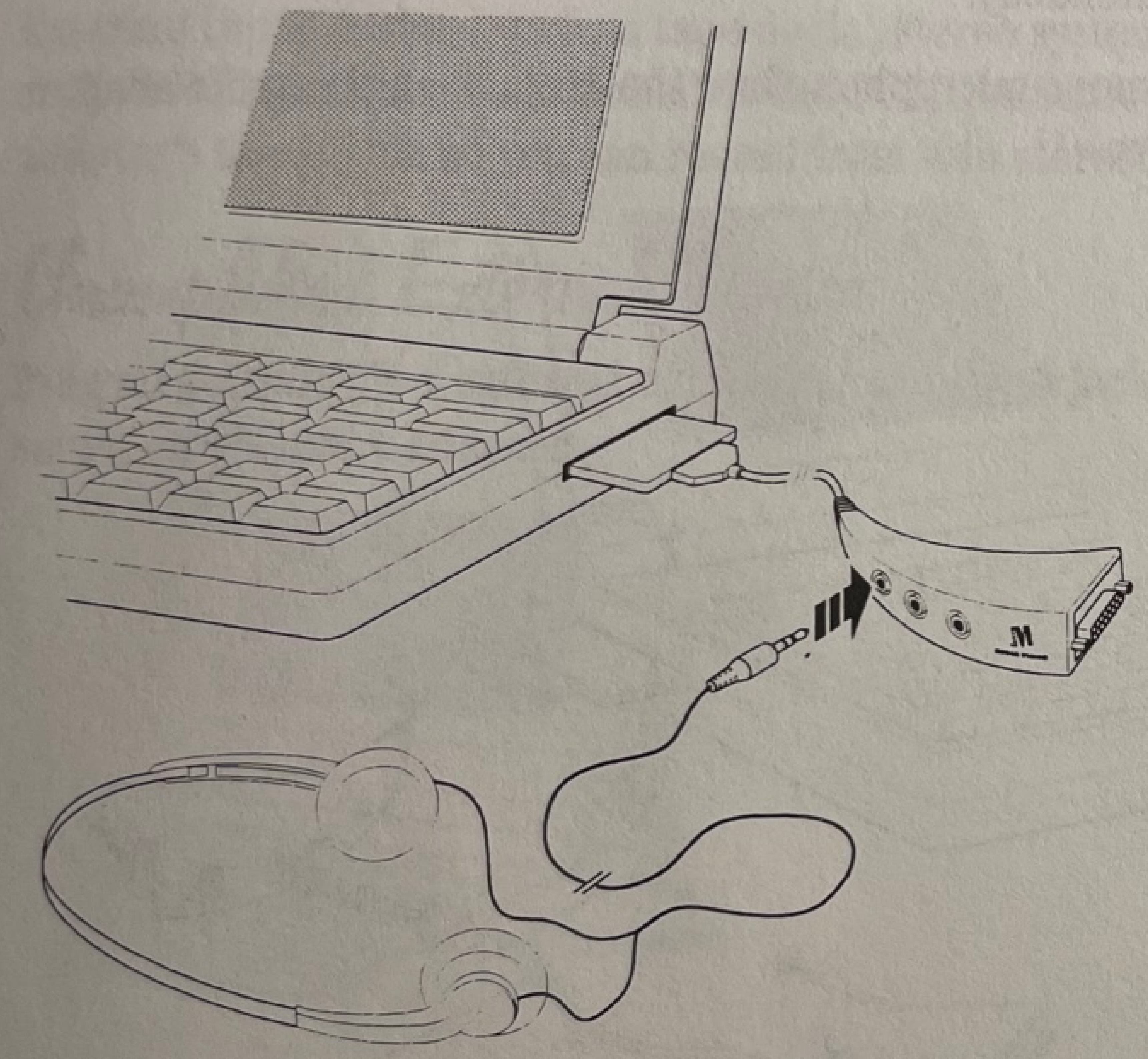
Attaching the Audio Adapter to Sound Card

Connect the audio adapter's cable to the exposed connection on the Sound Card. The connectors are keyed to fit one way only. Don't force the connectors. Make sure the sound card is seated firmly.



Headphones

Attach the stereo headphones to the audio adapter's ***Line-Out/Speaker*** jack as shown below.



The audio adapter's connector accepts mini 1/8-inch headphone jacks.

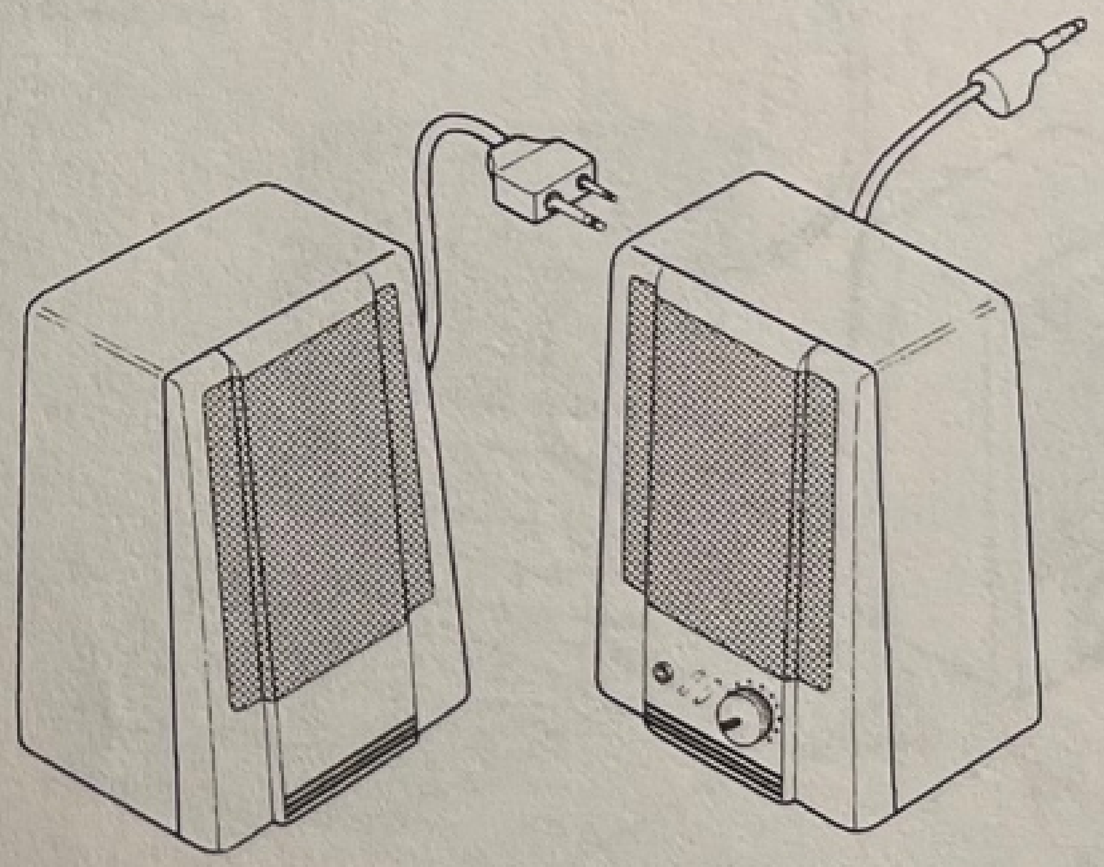
Speakers (Optional)

Shown below is a typical pair of speakers used with computers. Yours may vary in appearance from those shown in the illustrations.

Note

If your speakers have internal amplifiers, you may be able to bypass the internal amp (the one on the sound card is much better) by leaving out the batteries and setting the speaker control to the OFF position. Your sound card will drive 4 or 8-ohm speakers.

1. Locate the speaker wires inside the compartment at the back of the speakers.

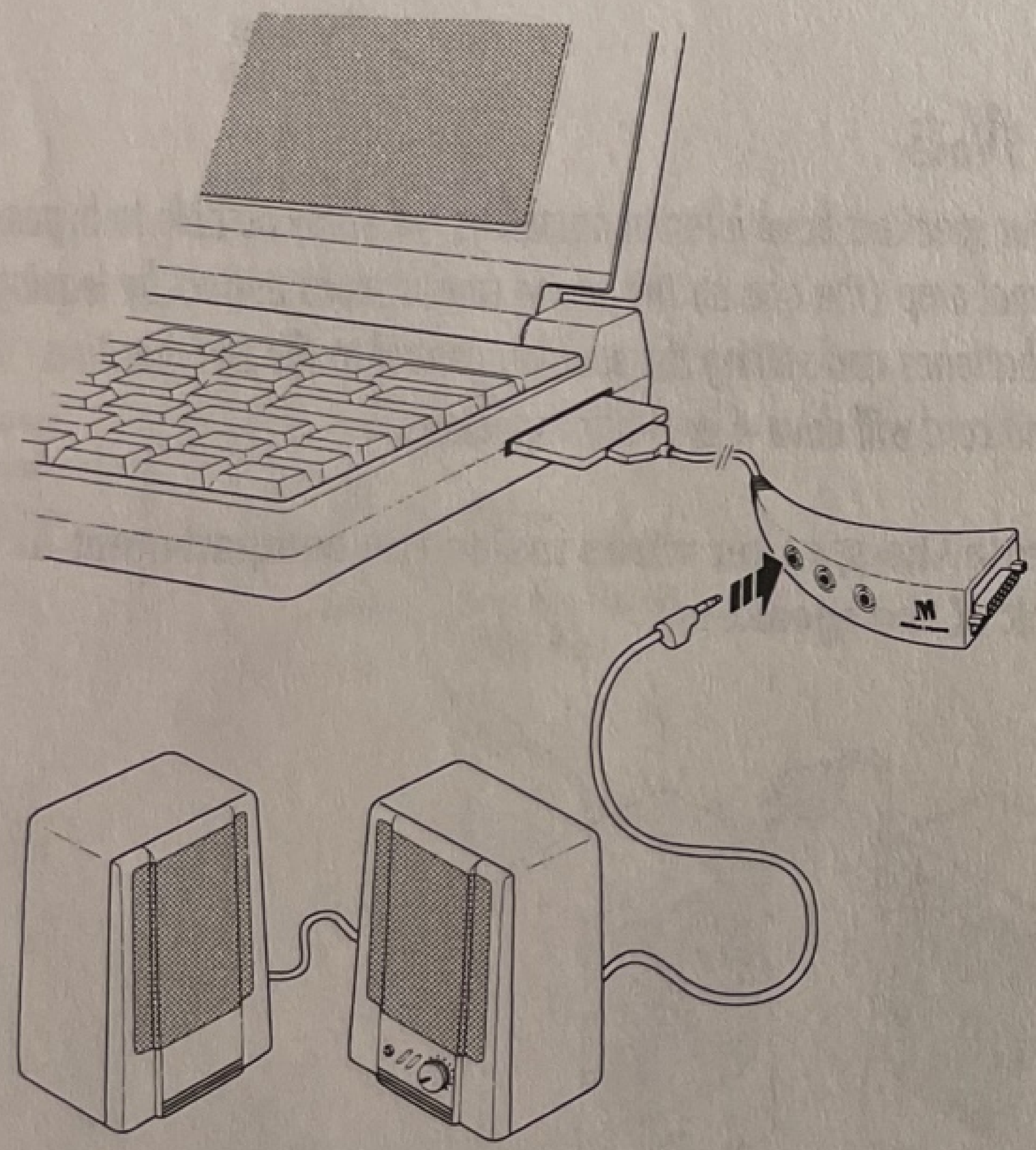


Some speakers don't have a compartment in the back because they are already connected to each other. Skip Step 1 and Step 2 if your speakers attached.

2. Connect the left speaker into the right speaker.

   (Batteries allow you to use the speaker's internal amplifiers and controls. Leave the speaker switched off if you don't use batteries.)

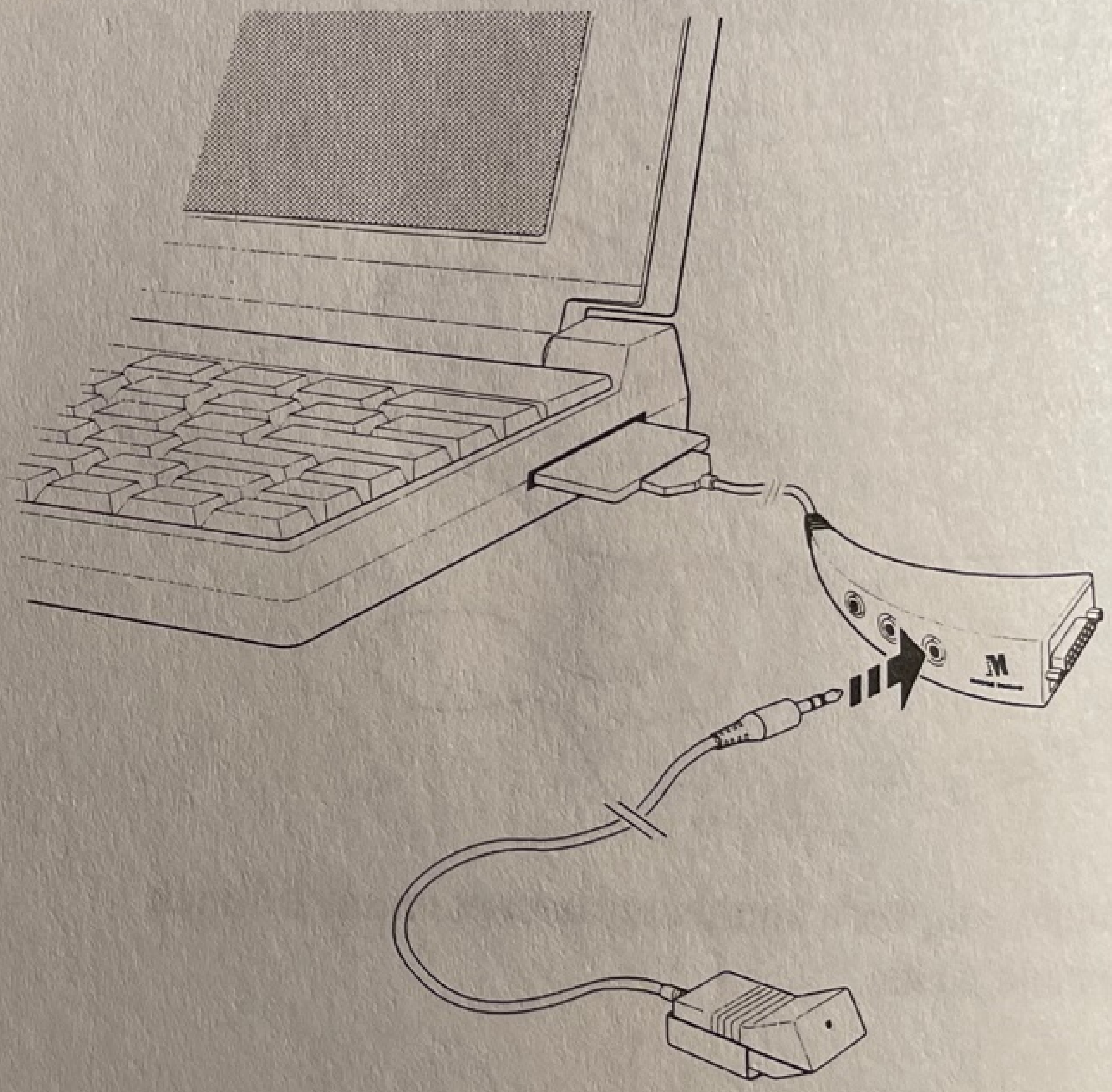
3. Plug the right speaker into the **Line-Out/Speaker** jack located on the audio adapter.



Microphone (Optional)

The **Mic** jack accepts microphones with a 1/8-inch connector (a 600 to 10K ohm dynamic or condenser mono microphone is recommended).

Plug a mono microphone into the **Mic** jack on the audio adapter as shown.

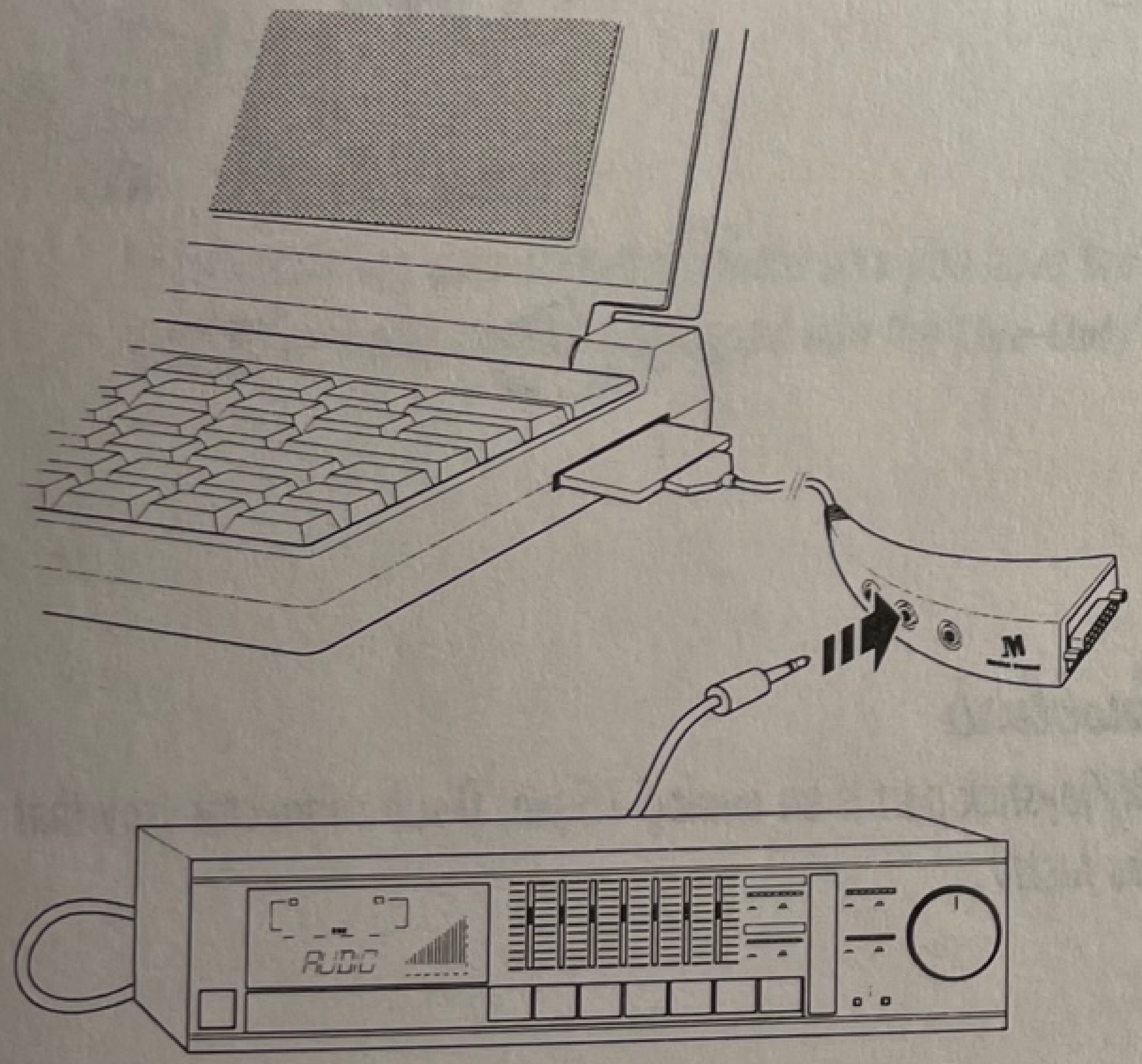


External Input Device (Optional)

External input devices such as tape decks, stereo systems, or audio CD players can be attached to the PCMCIA audio adapter's **Line-In** jack so you can record from it in stereo.

Unamplified External Device

Plug an *unamplified* external device into the **Line-In** jack on the sound card's audio adapter.



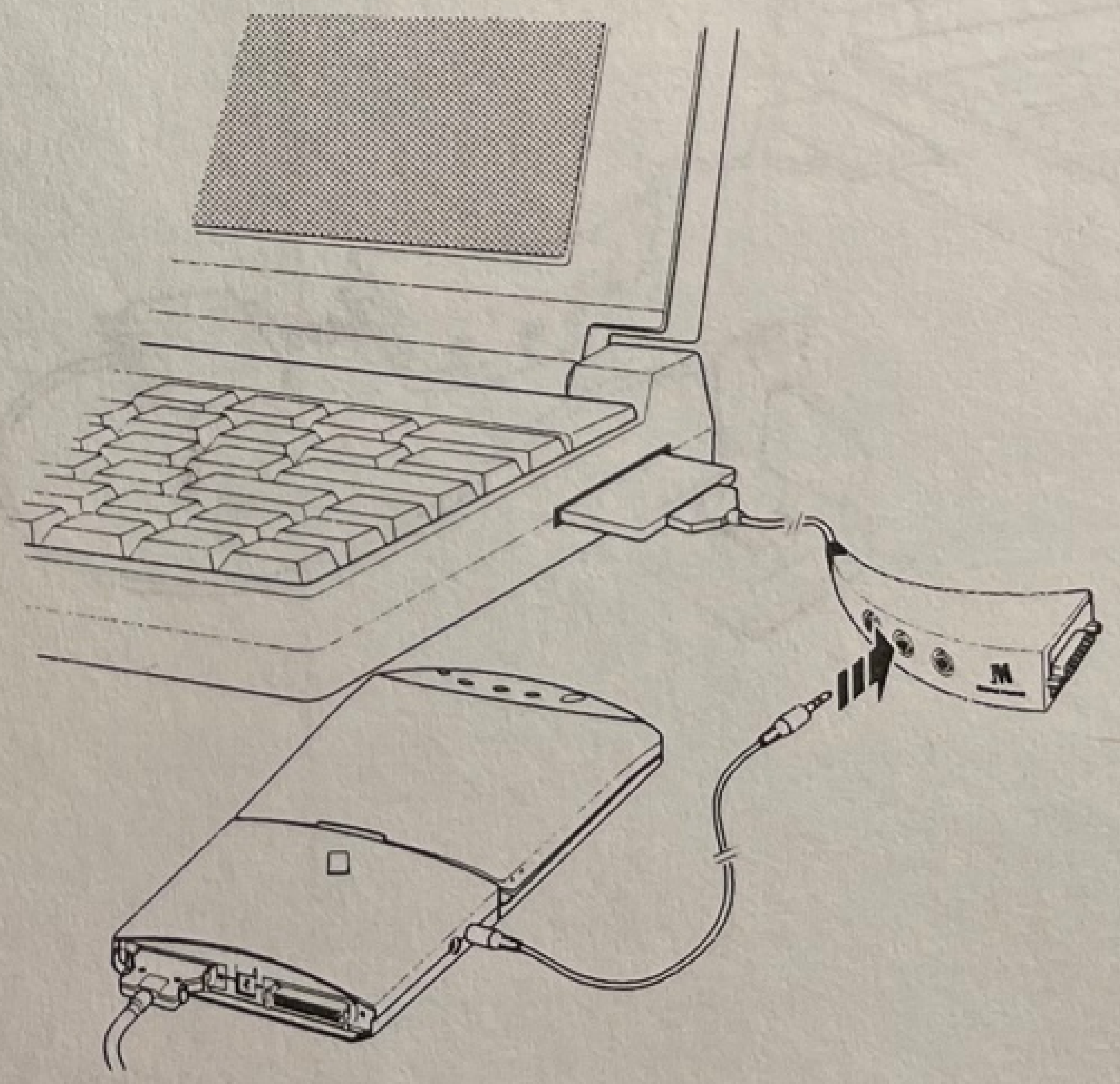
You can use the sound card and its speakers as an amplifier for external devices that don't have this capacity.

Caution

*If you plug in an amplified component, your sound card and computer may be damaged. Attach only un-amplified (line level) devices to the **Line-In** jack.*

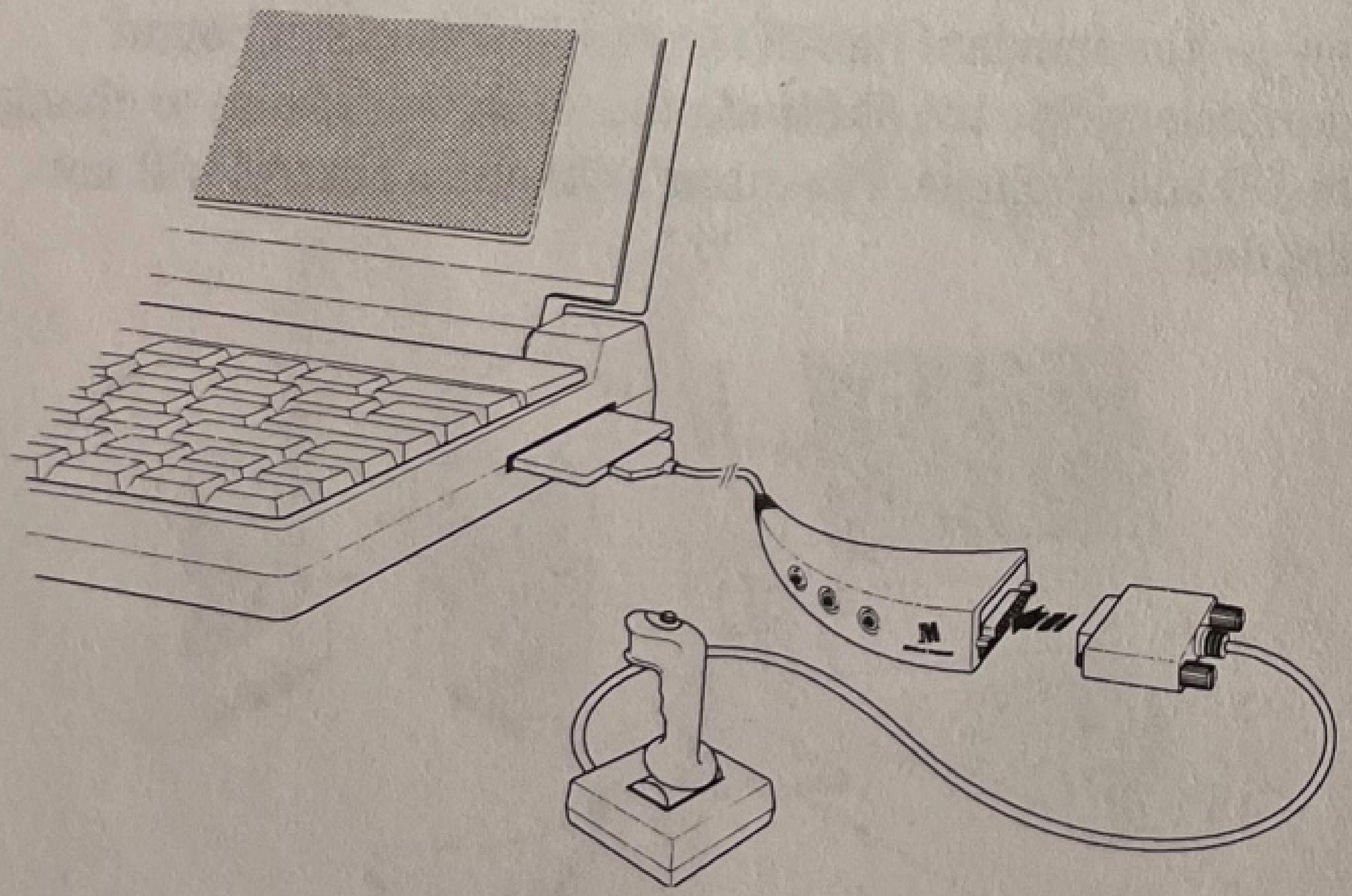
CD-ROM Drive Users

If you have a external CD-ROM drive, connect your CD-ROM drive's *unamplified* audio out to the **Line-In** jack of your PCMCIA audio adapter. Note that because there is no separate CD audio **Line-in** on the PCMCIA Adapter. This will require that you use the standard line-in mixer adjustments in Sound Impressions (see the **Multimedia User Guide** for details) to change the CD audio volume. The mixer's CD audio control will not function.

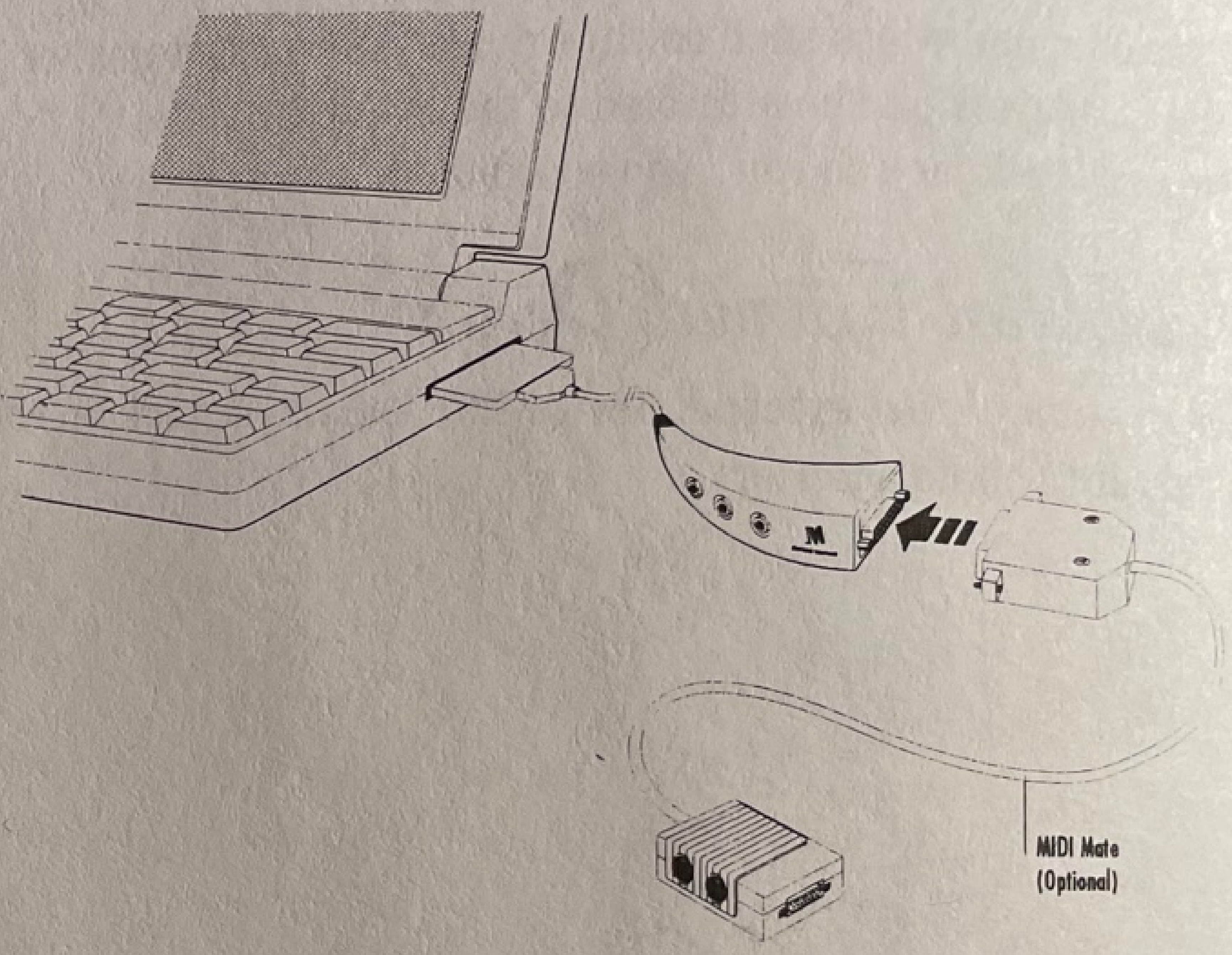


Joystick/Game Pad or MIDI Device (Optional)

The **Joystick/MIDI** port on your sound card is identical to that on a standard PC game adapter. The port supports any application software that uses a standard PC joystick. The joystick connector serves a dual purpose. It is both a joystick port and a MIDI interface for the sound card. If you want to use two joysticks, you will need to purchase a Media Vision MIDI Mate and a dual joystick Y-cable to maintain the necessary connections.



Connect a joystick or MIDI adapter to the **MIDI/Joystick** port on the sound card as shown. If you want to attach an external MIDI device to the sound card, you must use an optional MIDI Mate adapter.



Technoblurb

The MIDI/joystick port is an analog 15-pin, D-sub connector (say that five times fast!).

Software Installation

Once you complete the hardware installation and connect your external devices, you can install the software and configure it.

For your computer to interact with the sound card, the PCMCIA Sound Card Software Installation Program sets up an IRQ (interrupt request) channel and software drivers, all of which tell the sound card how to process audio information.

Tips & Tricks

*Before installing your software, make sure you have the sound card installed and that speakers or headphones are plugged into the **Line-Out/Speaker** jack.*

Chapter Contents:

- ❖ **PCMCIA Levels**—*page 16*
- ❖ **Run the PCMCIA Sound Card Software Installation**—*page 17*
- ❖ **Installing CardSoft Software (Optional)**—*page 19*
- ❖ **Software Installation Remarks**—*page 20*
- ❖ **PCMCIA Sound Card Considerations**—*page 21*
- ❖ **Configure Your Sound Blaster Emulation**—*page 23*
- ❖ **Using Your PCMCIA Sound Card**—*page 24*

PCMCIA Levels

You might find it useful to understand the different layers of PCMCIA, what functions they provide, and which ones you can do without. Imagine a three story building, the PCMCIA Bonaventure hotel. Yah...that's the ticket!

Penthouse Suite: Card Services

The Card Services does "double-duty" as a resource manager when you have more than one device attached to your notebook. At the top level or floor is card services, the largest, most complex, and extravagant portion of the PCMCIA Bonaventure hotel. Card services lets you insert and remove cards anytime and to automatically configure resources (a luxury that even expansion cards can't afford). For example, card services wouldn't let a modem card and a sound card request the same IRQ while they were both connected in your notebook. It's just not proper conduct in the penthouse! You can probably find this device driver in your CONFIG.SYS file. The driver's name is usually preceded by or has the letters "CS" somewhere in its filename (e.g., CS.EXE, PCMCS.EXE, or AWCS.EXE).

First Floor: Socket Services

The next level of PCMCIA is socket services, a smaller hardware-specific driver that allows card services to work with various PCMCIA hardware. You can usually find this device driver in your CONFIG.SYS file. The driver's name is preceded by or has the letters "SS" somewhere in the name (e.g., SS365SL.EXE, PCMSS.EXE). Socket services is directly tied to the PCMCIA hardware your notebook uses. If your notebook only had socket services (no card services) present, you would only be able to use your PCMCIA cards if they were inserted into the notebook before you turn your it on. You would lose the ability to plug-and-play while the notebook was running. Configuring the cards is also more difficult since multiple cards may want the same IRQ or chunk of memory.

Basement Level: Hardware

The bottom level or basement floor of the PCMCIA Bonaventure hotel is where the actual hardware, or chip, that implements PCMCIA is stored. There are a number of possible chips that your notebook may be using, but the most common implementation is based on the Intel 82365 chip (often called 365-compatible).

The Media Vision Sound Card enabler (SETSOUND.COM) works with Card & Socket Services, or any 365-compatible hardware. To free memory for DOS games, you may be forced to temporarily remove card services or socket services from your notebook (although you lose most of the plug-and-play functions that the PCMCIA software provides). If possible, you should attempt to keep at least the socket services driver present in the notebook so the sound card can talk to the notebook reliably.

Run the PCMCIA Sound Card Software Installation

1. First, plug the PCMCIA sound card into your PCMCIA slot. If you are not running Card & Socket Services, remove all other PCMCIA cards.
2. Insert the PCMCIA Sound Card Software Installation Program Disk #1 into your floppy disk drive.

Note

You can't run this program from within Windows using a DOS shell.

3. Close all open files and applications.

   For the installation steps, drive A: is assumed. However, you should substitute the drive letter of your 3½" floppy drive.

4. From the DOS prompt type:

```
A:\INSTALL
```

and press ***Enter***.

Note

*We recommend that you choose the **Automatic** option when running the PCMCIA Sound Card Software Installation for the first time.*

5. Follow the on-screen instructions. If you are prompted to make decisions during the installation process and you are unsure of what to do, see the helpful hints below to assist you during the PCMCIA Sound Card Installation Program procedure.

Helpful Hints on PCMCIA Sound Card Software Installation

We provide the following information to help you through the software installation process. Several situations may arise requiring you to make modifications to your system's environment. The following information will assist you in the transition.

❖ **PCMCIA Floppy Drive** If your system has only one PCMCIA Type -II slot with a floppy drive attached to it, you must copy all four installation disks to a directory on your hard drive.

Make a directory called `MVINSTAL`. Insert Installation Disk 1 in your floppy drive and type

```
COPY A:\*.* C:\MVINSTAL
```

Repeat this step for the remaining disks. Change to the `MVINSTAL` directory, and run ***INSTALL***. After installation, you can remove the `MVINSTAL` directory.

❖ **Memory Manager - EMM386:** If you are using a memory manager, such as Microsoft EMM386, you must exclude a memory address range so your sound card will work properly. The example device statement shown on the next page is for computers using the EMM386 memory manager. The PCMCIA Sound Card Software Installation Program does modify the memory manager DEVICE statement to reserves a certain amount of memory. However, you will have to reboot the computer first so it can take affect. Then rerun the PCMCIA Sound Card Software Installation Program to finish the install process. We recommend that you modify the CONFIG.SYS file and add the memory exclusion. This eliminates having to rerun the PCMCIA Sound Card Software Installation Program a second time. If you are using a memory manager other than EMM386 (i.e., QEMM or 386MAX), refer to their user guide for information on excluding the D800-D8FF memory range. An example exclusion statement for EMM386 is shown below:

```
DEVICE=C:\DOS\EMM386.EXE NOEMS X=D800-D8FF
```

❖ **Memory Manager - QEMM:** If you are using QEMM as a system memory manager, you will get an error message if using the STEALTH feature. The PCMCIA Sound Card Software Installation Program will detect the presence of QEMM and suggest that you turn off the STEALTH feature.

❖ **Memory Manager - 386MAX:** If you are using 386MAX as a system memory manager, the PCMCIA Sound Card Software Installation Program will detect the presence of 386MAX. A message appears suggesting that you change to another memory manager (i.e., Microsoft's EMM386). We highly recommend to eliminate possible compatibility issues that you use EMM386 as your memory manager.

❖ **BIOS Shadowing:** Another situation to be aware of is BIOS shadowing. Your computer system's BIOS may have specified the memory address range D800-D8FF to be shadowed. This will cause your sound card to not function correctly. You will need to run your computer's system configuration program (sometimes called CMOS) to turn off BIOS shadowing at that address. Consult your computer's documentation or contact your hardware manufacturer for details on how to make the required modifications.

❖ **Card Slot Identification:** If you intend to use the sound card with other PCMCIA cards without running Card & Socket Services, you will need to tell the software which slot your sound card is using. See ***SETSOUND.COM***–page 43 for further details.

❖ **Card & Socket Services Compatibility:** If you are already using a Card & Socket Services Program and you get a message "Incompatible socket services detected (not 2.X compatible)", the SETSOUND program is having difficulties communicating to socket services. More specifically, Card & Socket Services did not respond to the identification calls correctly. This may be due to a obsolete Card & Socket Services version that may not support all the necessary features. The best suggestion is to install the Card & Socket Services software included with your sound card. Please see ***Installing CardSoft Software (Optional)***—page 19.

- **Multiple Boot Configurations:** You could have problems if you have multiple boot configurations in your CONFIG.SYS. The PCMCIA Sound Card Software Installation Program cannot determine which memory manager is active, so it will consider the first one in your CONFIG.SYS as the active manager. The PCMCIA Sound Card Software Installation process will only change the first memory manager line in the CONFIG.SYS. You will need to add the memory exclusion line to all additional configurations in your CONFIG.SYS.
- **Windows Shell Programs.** There are many different after market shell programs that replace Program Manager (e.g., Norton Desktop or PC Tools), and this could cause a slight problem. The PCMCIA Sound Card Software Installation Program will only recognized Windows' Program Manager, so if you are running any other shell, your Multimedia Group will not be created automatically. Either you will have to build the group yourself or temporarily change your SHELL program back to Program Manager.

Note

Remember that all memory managers present in your CONFIG.SYS should have at least D800-D8FF excluded for your sound card to work.

- **Error Messages:** Other situations may arise concerning the installation of your software. Most of the time they will manifest themselves with an error message. Please refer to ***Error Messages***—page 26 for additional information.

Installing CardSoft Software (Optional)

Note

Most users will not have to install the CardSoft Card & Socket Services software. Usually this type of software (i.e., Card & Socket Services) is already loaded on your notebook. The PCMCIA Sound Card Software Installation Program notifies you if you need to install this software.

Follow the steps below to install the CardSoft Card & Socket Services software.

1. Insert the CardSoft Installation diskette into your floppy disk drive.

Note

Do not run this program from within Windows using a DOS shell.

2. Close all open files and applications.

   For the installation steps, drive A: is assumed. However, you should substitute the drive letter of your 3½" floppy drive if it is not A:.

3. From the DOS prompt type:

   ```
   A:\INSTALL
   ```

   and press **Enter**. The software begins to automatically install on your computer.

4. Follow the on-screen instructions. Remember to eject the diskette after installation, then reboot the system to activate the CardSoft software.

Software Installation Remarks

The CardSoft PCMCIA software is similar to the PCMCIA Sound Card Software Installation you ran earlier in this chapter (see ***Run the PCMCIA Sound Card Software Installation*** section on page 17). You may be promoted for the number of PCMCIA slots available on your notebook.

The CardSoft software allows you to:

- Select a destination drive
- Select a destination directory
- Select the CardSoft components
- Update your CONFIG.SYS file

You may be prompted for the type of PCMCIA controller chip used in your notebook (e.g., Intel 82365 Socket Services, Cirrus Socket Services). Refer to your notebook's user guide or check with the manufacturer for the specific PCMCIA controller chip being used.

If the PCMCIA Sound Card Software Installation Program displays the message shown below, you will need to install the Card & Socket Services software onto your hard disk:

```
Your system has no recognizable
PCMCIA resources. Be sure you have
your PCMCIA software installed
correctly. If needed, upgrade your
system with the Card & Socket
Services disk included with your
sound card. After upgrading, rerun
this installation again.
```

Drivers, sometimes referred to as Card & Socket Services software, must be installed on your hard drive to use the sound card. These drivers are normally supplied by your notebook manufacturer and may or may not have been pre-installed on your notebook.

Note

If your are upgrading to the Card & Sockets Services provided by Media Vision, remove your old version of Card & Sockets Services first. See original Card & Socket Services documentation on removing software from your computer. Remember to make a backup copy of both files before making any changes to your CONFIG.SYS and AUTOEXEC.BAT file.

PCMCIA Sound Card Considerations

Remember these important points when using your sound card.

- If you aren't using Card & Socket Services software, remember that the system will not be able to automatically configure your sound card if you remove then reinsert the sound card when the system is on.
- If you need to reinsert the card, be sure to either reboot the machine (press Control, Alt, and Delete keys simultaneously) or rerun SETSOUND at the DOS prompt.
- If you are in Windows when you need to insert the card, exit completely to the DOS prompt to run the SETSOUND program.
- If you ever install new PCMCIA devices, don't use the resources (IRQ or I/O addresses) already chosen for your sound card. If you aren't allowed alternate choices with the new device, you may need to rerun the PCMCIA software from `C:\MEDVSN` and type **`INSTALL.EXE`** to change your sound card IRQ setting.
- The most common problem you may see is an invalid IRQ choice. Your system may hang or sounds may be distorted if you choose an IRQ for the sound card that is either invalid or is already being used. The PCMCIA Sound Card Software Installation may not detect all IRQ conflicts, so if you encounter unusual behavior, try changing the IRQ value.

Sound Blaster Compatibility with VGame

Your sound card comes with special software that allows it to play games that require DOS Sound Blaster compatibility. The emulation program tricks the game into believing that the PCMCIA sound card has the very important Sound Blaster feature. This program is called **VGame** and it requires the following statements in the AUTOEXEC.BAT file:

```
SET VGAME_DIR=C:\MEDVSN\VGAME

SET BLASTER=A220 I7 D1 P330 Q2 T3
```

The VGame software has been designed to work with most DOS-based games on the market. Unfortunately, a few types of games will not work under VGame emulation (refer to the **Protected Mode Games** section on page 22).

Note

We highly recommend using Microsoft's EMM386 memory manager when using VGame.

Using VGame Commands

VGame Commands

VGAME ON	Activates the Sound Blaster Emulation (machine in VGame mode).
VGAME OFF	Deactivates the Sound Blaster Emulation (When you are finished playing a DOS game or when you want to start Windows).
VGAME	Displays current VGame configuration.
VGAME /?	Displays available VGame commands.

Note

*VGame relies on the values shown in the SET BLASTER statement (see **SET BLASTER** section on page 42 for more information).*

Protected Mode Games

You will not be able to run protected mode games under the VGame emulator. This restriction only affects the Sound Blaster emulation.

Note

DOS-extender games will not work in the VGame mode.

- Remember that if you don't use the VGame emulator, the sound card still emulates the Ad-lib standard as part of its hardware (Ad-lib doesn't require DMA). A FasTech Facts sheet listing games that are compatible with your sound card is available.

FasTech Facts

We have more detailed information on this topic. It's available by fax or BBS download and primarily of interest to those who appreciate technical intensity. See ***FasTech Facts Feature*** *in your* ***Multimedia User Guide*** *for more details.*

- If you attempt to run a protected mode game when your system is in the VGame emulation mode, the game will display an error and fail to load.
- If you have been running VGame emulation and decide to run Windows, don't forget to run ***VGAME OFF*** first. Windows will not operate if VGame emulation is still present in memory. The same thing applies if you are in Windows and you exit to a Windows DOS prompt and try to activate VGame this way.

Older Games

Some older games use Sound Blaster features that are too difficult and "set in their ways" to emulate. These games may not work correctly with the emulator. We have verified the VGame system with more than a hundred different games (and the list keeps growing), but more games may be found to have problems with the emulation. If you find a game that does not operate well under emulation, run the game without the VGame software, and set up the game to use the Ad-lib mode.

Configure Your Sound Blaster Emulation

Games require that certain settings be listed in the SET BLASTER statement. You can easily change these settings by changing values in the SET BLASTER statement. A typical SET BLASTER statement is shown below:

```
SET BLASTER=A220 I7 D1 P330 Q2 T3
```

This statement tells Sound Blaster-compatible applications how your sound card is configured.

- Be sure to exit VGAME before changing the SET BLASTER statement. These settings must match values in your sound card driver parameters.
- For best emulation results, be sure you have the VGame environment active when you are installing your game software.
- You must be running the emulator before you install the game in order for the game to work correctly. Most game software scans your hardware and attempts to identify your sound card during the software installation process.
- Choose the most basic Sound Blaster mode that your game installation program offers you (i.e., Sound Blaster clone, or the original Sound Blaster).

Using Your PCMCIA Sound Card

By now you have done the software installation and connected the necessary accessories via the audio adapter. But before you start using your bundled Windows and DOS utilities, you should become familiar with the ***Multimedia Users Guide***. Refer to the ***Multimedia Users Guide*** for detailed information about using and troubleshooting the applications with your sound card.

Troubleshooting Guide

Not all computers are created equal! Standard installation works with most—but not every—computer configuration. Use the information in this section if you have problems with your hardware and software installation.

Some "typical" problems are easily resolved by a simple step or two. We've organized this chapter so that you don't need to be a technician to get results.

If you encounter terms in this chapter you don't understand, refer to the ***Glossary*** in your ***Multimedia User Guide***. Don't forget that you also have access to a powerful Technical Support System. If these approaches don't bring satisfaction, contact us for FasTech Facts (more technical information). See your ***Multimedia User Guide*** for instructions.

Caution

We included diagnostic tools with the Online Technical Support System primarily for use if you need to call Media Vision Technical Support. Only use these tools without our help if you really know what you are doing.

Chapter Contents:

- ***Error Messages****–page 26*
- ***Memory Issues****–page 30*
- ***Configuration Issues****–page 31*
- ***Sound Issues****–page 31*
- ***Card & Socket Services Issues****–page 33*
- ***Game-Related Issues****–page 34*
- ***Conflicts With Other Programs****–page 38*

Error Messages

A card was detected and initialized, but was determined not to be a Media Vision Sound Card:

- You are probably operating without Card & Socket Services, and the SETSOUND tried to initialize another card inserted in your system or you haven't excluded a memory address (refer to **Memory Exclusion** section on page 41). Be sure to specify exactly where the card is inserted (see **/S** option in the **SETSOUND.COM** section on page 43) or remove other cards from your system when initializing the sound card.

Unable to initialize...

- Power down and restart your computer. Rerun the PCMCIA Sound Card Software Installation disks.

Cannot identify sound card:

- Ensure that sound card is completely seated in the type II slot and properly installed. Refer to **Inserting the Sound Card**—page 8.

- Run the MVPSDIAG.EXE utility in your installation directory (\MEDVSN). This utility checks to see if your sound card is installed and is working correctly.

CardServices Error:...or SocketServices Error:

- Your card or socket services may not have been set up correctly. Verify that all the resources your sound card needs are being made available by the PCMCIA software.

- You may also be running an older, and therefore possibly incompatible, version of Card & Socket Services. Install the Card & Socket Services that was included with your sound card.

Card not ready. This may not be the sound card:

- This error results when you try to reset the sound card and the sound card does not support reset and will not respond. Either the sound card is a defective card or it is not a Media Vision Sound Card. Remember that without Card & Socket Services you will have to specify which slot the sound card uses, especially if you are using other cards simultaneously.

Error registering with card services:

- There was a general error when the SETSOUND tried to register itself with Card & Socket Services. This is independent of either the presence of a card or its configuration (IRQ, I/O windows, etc.). Please see **Card & Socket Services Issues**—page 33.

Incompatible socket services detected (not 2.X compatible):

- The SETSOUND program encountered some problems talking to socket services. More specifically, socket services didn't reply to the identification calls correctly. This might be an old socket services version and may not support all of the necessary features. The best suggestion is to install the included Card & Socket Services software included with your sound card.

No Card detected in system slots:

- The SETSOUND program did not detect a card in the slots. If a card, is detected, and found not to be a Media Vision Sound Card, another warning is displayed. Either you don't have a card installed, or the notebook's pre-installed Card & Socket Services is not compatible. Verify that the sound card is securely installed and install the Card & Socket Services software included with your sound card.

Out of Memory:

- You do not have enough memory to run the application. You may have too many device drivers or TSR (Terminate and Stay Resident) programs loaded. Please see ***Simplify CONFIG.SYS File***–page 38. Also you can try using MEMMAKER to free up more memory. Refer to your Microsoft documentation for information on how to use MEMMAKER.

PCMCIA sound card is not responding:
Card not ready. This may not be the sound card:

- You may also try and exclude some memory for the sound card. Refer to the **Memory Exdusion** section on page 41.

- A possible cause is that your Card & Socket Services has not made available the I/O window resources that the sound card requires. Verify that Card & Socket Services has ports 200 to 20F and 380 to 38F available.

Requested I/O registers not available from Card & Socket Services. Either the system or card services is using the sound card register space. You may be able to use the /J or /F options:

- The most common cause will be an old Card & Socket Services that doesn't support the joystick. We highly recommend upgrading to the Card & Socket Services provided by Media Vision with your PCMCIA sound card. What is most likely happening is when the enabler tries to request registers 200-20Fh, card services will balk. The /J option disables the joystick support causing the enabler to only request 208-20Fh. The /F option causes the SETSOUND to not request 380-38Fh, therefore, disabling all FM synthesis. This might be necessary on systems with on-board Ad-lib. For further information on this subject please see **Card & Socket Services Issues**—page 33

Technoblurb

The I/O window that card services consider available are also usually a configurable Card & Socket Services option. For example, the CSALLOC.INI file may contain a line that says I/O RANGE=130-170, 208-350,468-602; note that this configuration will not support a joystick. On older Card & Socket Service software, if you try to change the I/O range to include 200-207h, the card services will not load.

Requested IRQ not available from card services:

- The requested IRQ (default IRQ 5) is currently not available from Card & Socket Services. The SETSOUND program tried to request it, but Card & Socket Services said no! Either the IRQ is already being used by another PCMCIA device (bummer, he got there first) or the IRQ is not being made available by Card & Socket Services (usually part of a CSALLOC.INI file configuration). Simple solution—either change around other PCMCIA devices, or pick another IRQ. Be sure to change this by running the PCMCIA Sound Card Software Installation Disks.

Technoblurb

Note that this message will only occur if you have a card in the system. When a card is present, the SETSOUND senses an insertion and attempts to request the IRQ and I/O spaces (therefore possibly leading to these errors). If a card is not present when the SETSOUND is loaded, it is UNKNOWN if the requested IRQs and I/O windows will be available. The SETSOUND won't know if they're available until a card is actually inserted into the notebook and an insertion event is generated. This will cause different effects depending on the Card & Socket Services software (beep codes, etc.). Make sure a card is inserted when the SETSOUND is loaded.

SETSOUND already loaded in system. Use the /U parameter to unload the current driver:

- ❖ You tried to install the SETSOUND program and it was already loaded. You may have the SETSOUND enabled in the AUTOEXEC.BAT file and you are trying to install it manually.

- ❖ If you run Card & Socket Services, SETSOUND only needs to be executed once.

SETSOUND not found in memory:

- ❖ SETSOUND may have been removed from memory with the /U option. Remember, the SETSOUND program is only left in memory when the Card & Socket Services is present in the system.

Socket Services SetPage failure:

- ❖ A socket services failure has occurred. Reinstall the Card & Socket Services that came with your sound card.

Socket Services SetWWindow failure:

- ❖ A socket services failure has occurred. Reinstall the Card & Socket Services that came with your sound card.

The sound hardware is not installed. Would you like the IRQ and DMA settings saved in SYSTEM.INI to be reset to default values?

- ❖ Most likely you have another sound driver loaded in Windows.

- ❖ Ensure that the PCMCIA sound card is installed properly.

- ❖ Check **Drivers** under **Control Panel** and make sure you don't have ProAudio, Ad-lib, Sound Blaster, etc. loaded. If you do, you will need to remove them. It also could be the same problem listed before concerning possible virtual drivers loading in the [386Enh] section of SYSTEM.INI. See the Virtual Drivers section following this description.

This program requires Windows 3.1 or Windows 3.0a with Multimedia Extensions:

- ❖ You may be missing the following line from the [boot] section of your Windows SYSTEM.INI file:

```
drivers=mmsystem.dll
```

The VxD Driver must be loaded for wave audio to operate in enhanced mode:

- You may have virtual drivers from other sound card in the [386Enh] section of the Windows SYSTEM.INI. Look for any of the following virtual drivers lines:

```
device=vsbd.386

device=vsbpd.386

device=vadlib.386

device=vtbd.386
```

- If you find any of the devices referenced above, place a semicolon (;) in front of that device line to disable it. For required entries, refer to **Windows SYSTEM.INI File**–page 44.

The SETSOUND program may not be able to see the card correctly:

- The SETSOUND program encountered some problems talking to socket services. More specifically, socket services didn't reply to the identification calls correctly. This might be a really old socket services version and may not support all of the necessary features. The best suggestion is to install the Card & Socket Services software included with your sound card.

Memory Issues

My system hangs up during installation. What should I do?

- Hang-ups can be avoided during installation by modifying EMM386 device line in CONFIG.SYS. For best results, remove /HIGHSCAN, and use RAM instead of NOEMS. These changes are needed while running the PCMCIA Sound Card Installation Disks only. You can restore your EMM386 line after successful installation.

I am having memory problems. What else can I try?

- If you are having memory problems, try the following key steps until enough memory is free:

  Remove card services, if present, from your CONFIG.SYS file. Type **REM** in front of the card services line to comment out the line.

  ```
  REM DEVICE=C:\CARDSOFT\CS.EXE
  ```

  Leave socket services in your system if possible.

- Remove socket services. If you're still short of memory, you may be faced with removing socket services as well. If your notebook's controller chip is not an Intel-based 82365 or compatible, you will not be able to do this.

Configuration Issues

The SETSOUND program told me that my system can only support an 8-bit interface. What does this mean?

- When the SETSOUND program tried to initialize your PCMCIA hardware, it determined that your hardware could only support an 8-bit interface (16-bit interfaces are much more common). Because of this, the performance of the sound card and your system may suffer under certain conditions. Depending on the speed of your system processor, you may find that the VGame emulation doesn't work correctly. The size of the hardware interface (8-bit vs. 16-bit) is dictated by the design of your notebook.

Sound Issues

I am not getting any sound!

- Ensure amplified speakers are turned off, and that speakers are plugged into the **Out/Speaker** jack. Refer to **Attaching the Audio Adapter to Sound Card**—page 10.

- Test **Line Out** jack with stereo headphones.

- Adjust the manual volume control wheel on the audio adapter.

- Check mixer settings. Refer to the **Multimedia User Guide** for further details.

I hear a lot of noise when I am using powered speakers.

- You may have the gain setting on the sound card too high. On the back of the audio adapter is a volume control thumbwheel.

I can't find the correct mixer setting to work with my speakers.

- The ***Line-Level /Speaker*** outputs have been combined into one output on this sound card—and are designed so that you can provide optimum signal levels to line level inputs on receivers or amplified speakers, to headphones, or to unpowered speakers.
- The internal amplifier has a gain adjustment (the thumbwheel on the side of the audio adapter) that allows you to adjust how much the amplifier boosts the signal from the mixer.
- If you are connected to headphones or a stereo receiver you would turn the volume control to minimum, which would reduce the amount of noise. This allows you to operate the mixer volume control in an optimum range.
- If you connect amplified speakers, you may find a mid-position setting to be more appropriate. If you connect unpowered speakers, you would likely turn the volume control to maximum to get full power to the speakers.
- The volume control and the mixer volume are essentially the same, except that the gain control will not go to zero. Please see your ***Multimedia User Guide*** for further details.

When playing *.WAV or MIDI files the sound seems to skip.

- Your notebook may be too slow or bogged down with multitasking (other applications). Make sure that your notebook meets all of the minimum requirements listed (refer to ***Minimum Requirements***—page 3).
- Check to see that the volume level is at a noticeable level.

My system seems to hang after playing a small portion of sound.

- Rerun the PCMCIA sound card software. Change to C:\MEDVSN directory and type INSTALL.EXE. A possible problem may be you have an IRQ conflict or IRQ setting error.

Card & Socket Services Issues

If the sound card is in a slot when my notebook boots, it configures and works properly. However, when hot inserted the sound card (installing the sound card after the notebooks boots up) there are no beeps and the sound card does not work.

❖ Re-run the PCMCIA sound card software. Change to C:\MEDVSN directory and type INSTALL.EXE and choose a different IRQ.

I cannot get my sound card to work with other PCMCIA cards.

❖ First verify that you can get both cards to function correctly if individually installed in the system.

❖ **If you are running** Card & Socket Services *(highly recommended),* then make sure the SETSOUND sound card enabler is executed before any other PCMCIA card enabler program. You might try moving SETSOUND to the very beginning of your AUTOEXEC.BAT. Card & Socket Services should take care of everything else.

Tips & Tricks

Card & Socket Services was specifically designed to allow multiple PCMCIA cards to work together in a system. Getting two PCMCIA cards to work together without Card & Socket Services can be a very tricky and frustrating experience. Read on if you dare, otherwise we suggest you install Card & Socket Services.

❖ **If you are not running** Card & Socket Services, the following steps might result in an unsuccessful conclusion.

1. Insert the PCMCIA sound card into your computer's PCMCIA Slot 1.
2. Make a note of the I/O address, IRQs, and memory addresses used by the two PCMCIA cards. Run the PCMCIA Sound Card Installation Program (INSTALL.EXE) in the C:\MEDVSN directory and verify the IRQ settings do not conflict.
3. Insert the other PCMCIA card into the PCMCIA Slot 0.
4. Execute the sound card enabler and specify the the slot using the /S:1 option (i.e., SETSOUND /S:1). You should not receive any error messages.

- **If you are not running Card & Socket Services (Continued)**

5. Now execute the other PCMCIA card's enabler or initialization program. Note that you may have to give the enabler program special parameters to ensure no memory or I/O address or IRQ conflicts. Refer to the non-Media Vision PCMCIA card's documentation for specific details.

Still not working?

- Changing the slot in which the PCMCIA cards are inserted may help. You might also try executing the other PCMCIA card enabler software before executing the Media Vision SETSOUND program. Make sure the memory manager in your CONFIG.SYS has at least 8 Kb of memory excluded (i.e., X=D800-D9FF). If all else fails, install Card & Socket Services.

Game-Related Issues

Why won't my joystick operate correctly?

- Some computers have a built-in joystick port. The sound card's normal setting (shipped from the factory) is to make instant use of a joystick. However, other computers may have a multi-I/O board that has a joystick port. Make sure that you disable the joystick port on the second device.

- If the computer is too fast, that may also cause a problem. Refer to your computer's user's guide for instructions on how to adjust the bus (I/O CLK) speed. The joystick may not be compatible with the computer speed. Contact the game manufacturer and ask for a joystick driver that works on fast machines

- There are three possible causes for this problem. First, verify that your card services supports the joystick registers. Many current versions of card services do not allow a PCMCIA card to use the joystick registers (200 hex to 207 hex). The sound card PCMCIA Sound Card Software Installation Disks may have warned you that your system would not support the joystick. Your solution is to either upgrade to the Card & Socket Services included with your sound card, or to remove the existing Card & Socket Services from your system. If you do change your system setup, be sure to remove the */J* from the SETSOUND.CFG in the MEDVSN directory on your hard drive.

Why won't my joystick operate correctly? (Continued)

- The other possibility is another PCMCIA card that you have installed is using registers 200 hex to 207 hex, thus causing a conflict with the joystick I/O addressing. See ***Card & Socket Services Issues***—page 33 for additional details.

- Another possible cause to a non-working joystick interface is your system may not be supporting the joystick BIOS interface. Many portable systems do not include the joystick interface in the system BIOS. Be sure to run the JOYDRV.COM utility to install the Media Vision version of the joystick BIOS. See ***Special Joystick Configuration***—page 41 for further details.

What should I know before playing games?

- All Sound Blaster games use a DMA, IRQ, and I/O port. The current PCMCIA standard does not support DMA transfer, however, VGAME simulates these requirements. (Refer to the ***Sound Blaster Compatibility with VGame*** section on page 21, for more information on emulating Sound Blaster compatibility.)

- The PCMCIA sound card is not Pro Audio Spectrum/16/Plus/CDPC compatible. Since the sound card uses new hardware, older games will not offer this board as a configuration option, and you will have to select Sound Blaster or Ad-lib for all games.

I have games that were already installed when I installed my sound card. These games are still playing through the internal PC speaker.

- Rerun the game's setup command and select a sound device. If that doesn't work or there is no setup option, rerun the game installation. Refer to the user guides for these games or contact the game manufacturers for assistance.

Note

DOS-extender games that support Sound Blaster will not work in VGame mode.

I hear music, but I don't hear speech or sound effects from my game.

- The game you are currently running doesn't have speech or sound effects.

- The game is set to use the Ad-lib driver. Run the game setup and select Sound Blaster driver.

I'm not hearing any sounds or hear faint sounds from my DOS-based game. Why not?

- Make sure you are currently running the VGame emulator (execute VGAME ON from the DOS prompt). Be sure your game has been setup/installed correctly, choosing the basic Sound Blaster hardware with the correct address, IRQ, and DMA settings that the VGame emulator displayed when loading. Verify your volume settings are set to audible levels (check both the volume knob and the MIXER.EXE utility).
- Also verify that your game has all the required memory resources (conventional, EMS, or extended memory).
- Often games will operate, but not provide sound, if the memory resources are below a certain level. If all of these have been verified, your game may not be compatible with the emulation software.

My game fails to load, giving me an error message about protected mode software, or a DPMI/VCPI interface failure.

- Your game is a protected mode game, and will not work with the VGame emulator. You may configure the game to only use the Ad-lib standard, and then run it without using the emulator.

My system locked-up with a "VGame Termination Error" right in the middle of my game, forcing me to reboot. Why?

- The VGame emulation program detected an abnormality in the operation of your game. This is often caused by an incorrect setup or insufficient EMS memory for the game to operate correctly. Verify the game is setup correctly (basic Sound Blaster) and that your system is providing sufficient memory resources. If everything looks correct, your game may not be fully compatible with the emulation system.

I don't hear sound when I run Sound Blaster games.

- Some games do not work properly if the computer is running in TURBO mode. Look for a TURBO button on the front. If you don't have a TURBO button, disable the internal/external memory cache in the computer's CMOS setup to achieve a similar result. Some games require different system configurations.

- Some Sound Blaster games may look for the following statement in your AUTOEXEC.BAT file:

```
SET BLASTER=A220 I7 D1 P330 Q2 T3
```

where:

A = Sound Blaster Port Address
I = IRQ
D = DMA
P = Midi Port Address
Q = Midi IRQ
T = Product number.

- Other Sound Blaster games do not look for this statement, but allow you to change settings using the game install program, or modify a configuration file.

- A few games default to certain settings and do not allow the user to change these settings to match the sound card settings. You will need to edit the AUTOEXEC.BAT file and modify the SET BLASTER line. As a default setting, the Sound Blaster section uses IRQ 7, I/O 220h. Most of the time it will be the IRQ setting that will needs to be changed to match the game's default.

I don't have enough free conventional or EMS memory to run my DOS games.

- This is a common problem with most systems (desktop or notebook). The most obvious fix is to remove portions of your PCMCIA software, see **Memory Issues**–page 30 concerning this issue. It is also advisable to run a memory optimization utility, such as DOS's MEMMAKER, to rearrange your drivers and memory manager settings.

Conflicts With Other Programs

This section will help you if you are still having conflicts with other programs. The best way to eliminate conflicts introduced at boot-up is to set up a generic, or “clean boot” file.

Once you have simplified your CONFIG.SYS and AUTOEXEC.BAT files, reboot your computer and run the PCMCIA Sound Card Software Installation Disks again. After you verify that your sound card is operating properly, you can restore your original CONFIG.SYS and AUTOEXEC.BAT files. Add the original command lines one at a time. After each change to your CONFIG.SYS or AUTOEXEC.BAT file, you must save the file and reboot your computer for the change to take effect. Identify the cause of the conflict and leave that statement out or modify it appropriately.

Note

To deactivate a line in either the CONFIG.SYS or AUTOEXEC.BAT file, type **REM** *in front of the line statement. Be sure to put a space after* REM *for it to take effect. If you need to reactivate the line later, just delete the* REM *command.*

Simplify CONFIG.SYS File

You should simplify your CONFIG.SYS file so it contains only the following items:

```
FILES=(existing value)

BUFFERS=(existing value)

STACKS=9,256

DEVICE=(path\)HIMEM.SYS
```

You must also keep any absolutely essential device drivers such as DMDRVR.BIN, which is necessary for proper operations of the notebook’s hard drive.

Caution

Before revising your CONFIG.SYS and AUTOEXEC.BAT make copies of them. Ideally you should create a working boot disk with your current CONFIG.SYS and AUTOEXEC.BAT before experimenting with these files on your hard disk. Check your DOS manual on how to create a boot disk.

Simplify AUTOEXEC.BAT File

You should simplify your AUTOEXEC.BAT file so it contains only your PROMPT, PATH and SET statements. Also, remove any TSR programs, disk caches, RAM disks, menu or shell programs, etc. You must leave in the SETSOUND statement.

Reference

This chapter describes the changes made to your system files. It will help you find your way around if you need to edit your files.

Chapter Contents:

- ❖ **CONFIG.SYS File**—*page 39*
- ❖ **AUTOEXEC.BAT File**—*page 41*
- ❖ **Windows SYSTEM.INI File**—*page 44*

CONFIG.SYS File

The Card & Socket Services Program adds lines to your CONFIG.SYS file (one for the sound card). The following sections show the standard (default) entries.

Card & Socket Services Drivers

The following statements are added to your CONFIG.SYS file after you install the (optional) CardSoft software. These DEVICE statements tell the sound card to "wake up" and take note of its surroundings.

Note

Your CONFIG.SYS file may look slightly different and may have additional drivers listed.

The actual lines and what they mean are shown below:

This line is required for the Intel 82365 chip set.

```
DEVICEHIGH=C:\CARDSOFT\SS365SL.EXE
```

The CS.EXE driver juggles the system resources, manages adapter and card resources, and manages the configuration process.

```
DEVICEHIGH=C:\CARDSOFT\CS.EXE
```

CSALLOC.EXE is a DOS utility that searches your notebook for the following items:

- Available memory
- An available I/O Port
- An available IRQ

```
DEVICEHIGH=C:\CARDSOFT\CSALLOC.EXE
```

Once it finds information about those resources, it stores them in a file called CSALLOC.INI. The CardSoft software uses this file in determining which resources the sound card can or cannot use. Use the CSALLOC.EXE file whenever you change your IRQ, I/O range, or memory settings on your notebook. This program can be run in two different modes.

Note

This program cannot be run from the Windows DOS window.

CSALLOC /G activates the program in the nondisplay mode. When you enter this command at the DOS prompt, you are told to remove any other cards in your notebook. Press any key.

CSALLOC /G scans your notebook for available IRQs, I/O ports, and memory. Once it collects this information, the program generates a file called CSALLOC.INI.

CSALLOC /G/D activates the program in display mode. Adding the /D switch allows the program to display the available resources as they are located, then places this information to the CSALLOC.INI file.

```
DEVICEHIGH=C:\CARDSOFT\ATADRV.EXE
```

ATADRV.EXE is a driver that supports ATA hard drive PCMCIA cards.

```
DEVICEHIGH=C:\CARDSOFT\MTSRAM.EXE
```

MTSRAM.EXE is a device driver designed to work with Flash cards.

```
DEVICEHIGH=C:\CARDSOFT\CARDID.EXE
```

This card services driver determines system resources and configuration.

Memory Exclusion

The example device statement shown below is for a person using the EMM386 memory manager. The PCMCIA Sound Card Software Installation Disks adds a DEVICE statement that reserves a certain amount of memory, if you are using a memory manager. If you are using a memory manager other than EMM386, refer to its user guide for information on excluding the D000-DFFF memory range. The PCMCIA Sound Card Software Installation Disks will modify your EMM 386 statement. An example exclusion statement for EMM386 is shown below:

```
DEVICE=C:\DOS\EMM386.EXE NOEMS X=D800-D8FF
```

AUTOEXEC.BAT File

The PCMCIA Sound Card Software Installation Disks add the following lines to the AUTOEXEC.BAT file:

```
rem C:\MEDVSN\vbeai.com
C:\MEDVSN\SETSOUND.COM
SET VGAME_DIR=C:\MEDVSN\VGAME
SET BLASTER=A220 I7 D1 P330 Q2 T3
```

In addition,the PCMCIA Sound Card Software Installation Disks add the directory MEDVSN to your PATH statement.

Special Joystick Configuration

```
JOYDRV.COM
```

Some portable computers do not include the joystick interface in their BIOS and you may find a small number of game programs that may not run properly. Running this program installs the Media Vision version of the joystick BIOS. Type:

```
JOYDRV
```

and press ***Enter***.

Your joystick should now be recognized. Type **`JOYDRV ?`** for a complete list of options.

JOYDRV.COM Parameters

/Q	Quit. No display unless an error occurs.
/U	Uninstall driver.

VESA Compatibility Driver

VESA (Video Electronics Standards Association) is responsibile for VL-bus standard and created the VESA BIOS Extensions/Audio Interface (VBE/AI), a software sound standard which allows DOS software to communicate with your sound card through hardware in a standardized manner.

Currently, without VBE/AI software, companies must write software drivers for every type of sound card on the market. Under VBE/AI, software companies merely write software conforming to the VBE/AI standard to support all audio hardware with VBE/AI drivers. The driver VBEAI.COM driver automatically uses the values specified by the SET BLASTER statement (also found in your AUTOEXEC.BAT file). A typical statement is shown below:

```
rem C:\MEDVSN\VBEAI.COM
```

To activate this driver, remove the `REM`.

SET BLASTER

This statement tells Sound Blaster-compatible applications how your sound card is configured. It also tells VGame which Sound Blaster resources to emulate.

```
SET BLASTER=A220 I7 D1 P330 Q2 T3
```

A#	Port Address. Default is set to 220.
I#	IRQ assignment. Default is set to 7.
D#	DMA channel. Default is set to 1.
P#	Midi Port Address (MPU-401 Emulation) Default is set to 330.
Q#	Midi Port IRQ (MPU-401 Emulation) Default is set to 2.
T#	Product Number. Must be T3.

SETSOUND.COM

SETSOUND.COM is the PCMCIA enabler for the sound card. It has been designed to work with Card & Socket Services. The table below includes additional parameters that can be added to the SETSOUND.COM line.

```
C:\MEDVSN\SETSOUND.COM
```

/?	List of command line options.
/U	Remove the SETSOUND.COM from memory.
/I:XX	sound card IRQ. The default is 5.
/M:XXXX	Reserves 4 K memory page starting at address XXXX. For example, the default value is M:D800. The 4 K memory page starts at D800.
/S:N	Specify the particular socket in which the sound card is inserted.
/F	Disables the sound card's Ad-lib support (i.e., registers 388-38Bh).
/J	Disables the sound card joystick support (i.e., 200-207h). The joystick is enabled as the default.
/P	Pauses for keystroke after error.
/V	Enables verbosity for all messages.
/8	Enables an 8-bit interface to the card.

Technoblurb

SETSOUND will read a file called SETSOUND.CFG which is in the same directory where SETSOUND.COM is located. It looks for the switches in the SETSOUND.CFG before processing those on the SETSOUND command line in the AUTOEXEC.BAT. This is were the PCMCIA Sound Card Software Installation Disks put configuration information.

Windows SYSTEM.INI File

Below is a sample portion a SYSTEM.INI file after the default settings have been added by the PCMCIA Sound Card Software Installation Disks.

The SYSTEM.INI file is modified only if you have Windows installed on your system prior to running the PCMCIA Sound Card Software Installation Disks.

```
[boot]
drivers=mmsystem.dll msmixmgr.dll mmmixer.dll

[386Enh]
dmabuffersize=064
device=vmvpsd.386

[drivers]
wave=mvpswmd.drv
mixer=mvpsmxd.drv
midi=mvifm.drv
midi1=mvpswmd.drv

[mvpswmd.drv]
int=5
```

Reconfiguring Your Sound Card

Should you need to reconfigure your sound card settings after your initial installation, simply run INSTALL from the MEDVSN directory. To do this, go to the DOS C:\> prompt and type

```
CD \MEDVSN
```

and press **Enter**.

If you installed the sound card software in a directory other than MEDVSN, substitute that directory name for MEDVSN in the above example. Next, type

```
INSTALL
```

and press **Enter**.

Follow the steps in the bottom of the display box and be sure to update and save the new settings before exiting the program.

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How to Call Tech Support

If you've followed the instructions for setting up your Media Vision products and consulted the manual, online help, and troubleshooting guide and still have a problem with your PCMCIA sound card, you're invited to call Tech Support.

Most of the time when there's an installation problem, it's a compatibility issue that can be handled easily—*it is not a defective product.*

Adding extra devices—modems, scanners, sound cards, extra drives, MIDI devices—can cause incompatibility with your PC. This may happen during the installation process or later when adding a new component. Sometimes new software compatibility will create a problem.

To help fix your problem, Tech Support technicians need to know as much as possible about your hardware set-up *before* they can help you. They know about many reported conflicts between systems and about IRQs, DMAs, and drivers, and the information about your system will help them to quickly help you. Please gather as much information as you can—*before* you call us. There's a handy chart for keeping track of this information on the inside front cover. All you have to do is fill in the blanks.

Here are some quick hints:

- ❖ Check your computer owner's manual(s) for information. It should help.
- ❖ Check the manual that came with each component (scanner, sound card, etc.) for information about it.
- ❖ If you *don't* have some of the components, such as a scanner, don't worry about them.
- ❖ Find out as much as you can before you call, but don't feel that you can't call if you don't have all the details.
- ❖ When you talk to a technician, be sure to *write down any information* you learn about your system so you'll have it for future reference.
- ❖ Be sure to *be sitting by your computer* (or as close to it as possible) when you call Tech Support.
- ❖ You'll be asked for your customer ID number. If this is your first call, you'll be registered and provided with an ID number. Write it down on your System Checklist.

If you're told to send it back...

If your technician determines that your problem is related to defective hardware, he or she will ask you to send the hardware to Media Vision for repair or replacement. You'll be given an RMA number. (RMA stands for Return Merchandise Authorization.) Media Vision will only accept returned products with an RMA number clearly and prominently written on the outside of the package. We *cannot* accept returns without this number. For your protection, we suggest that you send the package to us via private carrier (such as UPS or Federal Express). This lets you easily trace the package and helps assure delivery.

Complete your System Checklist before you call us!
It's on the inside front cover.

MEDIA VISION

How to reach us… from almost anywhere on the planet!

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Customer Support	**(800) 638-2807 or (510) 770-9905**
Bulletin Board	**(510) 770-0527** 300-14.4K baud, 8 bits, no parity, 1 stop bit Assign your own account name and password.
Internet Address	**techsupp@mediavis.com** **prodmgrs@mediavis.com**
CompuServe	**Type: go mediavision**
America Online	**Type: mediavision**
Main Office	**(800) 348-7116 or (510) 770-8600**
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KP95010